

## CLAIMS

1. An insert adapted to connect to opposite walls in a heat  
2 exchanger tube, said insert comprising a corrugated sheet having alternating wave  
crests and wave troughs connected by wave flanks having openings therein,  
4 wherein at least some of said wave crests have a length different than the length of  
said wave troughs.
2. The insert of claim 1, wherein the length of said some wave  
2 crests is one of either at least twice or no more than one half the length of said  
wave troughs.
3. The insert of claim 1, wherein the waves of said corrugated  
2 sheet have a selected height.
4. A method of producing an insert according to claim 1,  
2 comprising:
  - (a) transporting a sheet metal strip at a specific feed rate and specific  
4 advance through a deformation die on an eccentric press that  
operates with continuous stroke operation; and
  - 6 (b) selectively changing one of the feed rate and continuous stroke  
speed, wherein
    - 8 (1) at a constant continuous stroke speed, the feed rate when  
reduced forms crest or trough lengths less than when the feed  
10 rate is increased, and
    - (2) at a constant continuous feed rate, the continuous stroke

-13-

12 speed when reduced forms crest or trough lengths greater  
than when the continuous stroke speed is increased.

2 5. The method of claim 4, further comprising interrupting  
continuous stroke operation during continuous feed of said metal strip to form a  
section having one of either no waves or a single long drawn-out wave.

2 6. An insert adapted to connect to opposite walls in a heat  
exchanger tube, said insert comprising a corrugated sheet having alternating wave  
4 crests and wave troughs connected by wave flanks having openings therein, said  
insert having a first section having a first wavelength and a second section having  
a second wavelength, said first section being adjacent said second section and  
6 said first wavelength being is less than the second wavelength.

2 7. The insert of claim 6, further comprising a third section having  
a third wavelength, said second section being between said first and third sections  
with said second wavelength being greater than said first and third wavelengths.

2 8. The insert of claim 7, further comprising a heat exchanger  
medium inlet opening in said first section and a heat exchanger medium outlet  
4 opening in said third section, wherein said first and third wavelengths are  
substantially the same.

-14-

2 9. A method of producing an insert according to claim 6,  
comprising:

4 (a) transporting a sheet metal strip at a specific feed rate and specific  
advance through a deformation die on an eccentric press that  
operates with continuous stroke operation; and

6 (b) selectively changing one of the feed rate and continuous stroke  
speed, wherein

8 (1) at a constant continuous stroke speed, the feed rate when  
reduced forms said first section and said feed rate when  
10 increased forms said second section, and

12 (2) at a constant continuous feed rate, the continuous stroke  
speed when reduced forms said second section and said  
continuous stroke speed when increased forms said second  
14 section.

2 10. The method of claim 9, further comprising interrupting  
continuous stroke operation during continuous feed of said metal strip to form a  
section having one of either no waves or a single long drawn-out wave.